ABSTRACT

       A method for simulating the optical properties of samples having non-uniform line edges includes creating a model for the sample being analyzed. To simulate roughness, lines within the model are represented as combinations of three dimensional objects, such as

5   circular or elliptical mesas. The three-dimensional objects are arranged in a partially overlapping linear fashion. The objects, when spaced closely together resemble a line with edge roughness that corresponds to the object size and pitch. A second method allows lines within the model to vary in width over their lengths. The model is evaluated using a suitable three-dimensional technique to simulate the optical properties of the sample being analyzed.

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TWI-23710